

13th September

Corbettmaths

$$\mathbf{A} = \begin{pmatrix} 6 & -2 \\ 1 & -1 \end{pmatrix} \quad \mathbf{B} = \begin{pmatrix} 4 \\ 3 \end{pmatrix}$$

Work out the matrix **AB**Work out the matrix **A²**Express $x^2 + 14x + 52$
in the form $(x + a)^2 + b$

Deduce the maximum value of

$$\frac{1}{x^2 + 14x + 52}$$

 $f(x) = \frac{3}{x + 8}$ for all positive values
of x Work out $f(x + 2) + f(x + 1)$ Give your answer as a single fraction in
its simplest form.